Global Health Technical Essentials Series Health Systems Overview

Demystifying Health Systems

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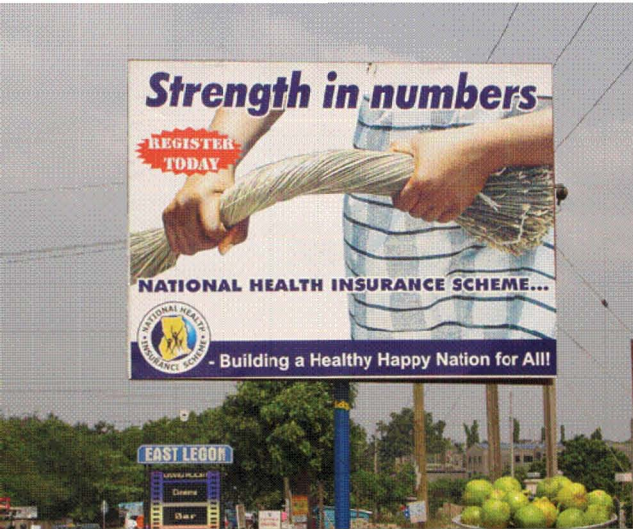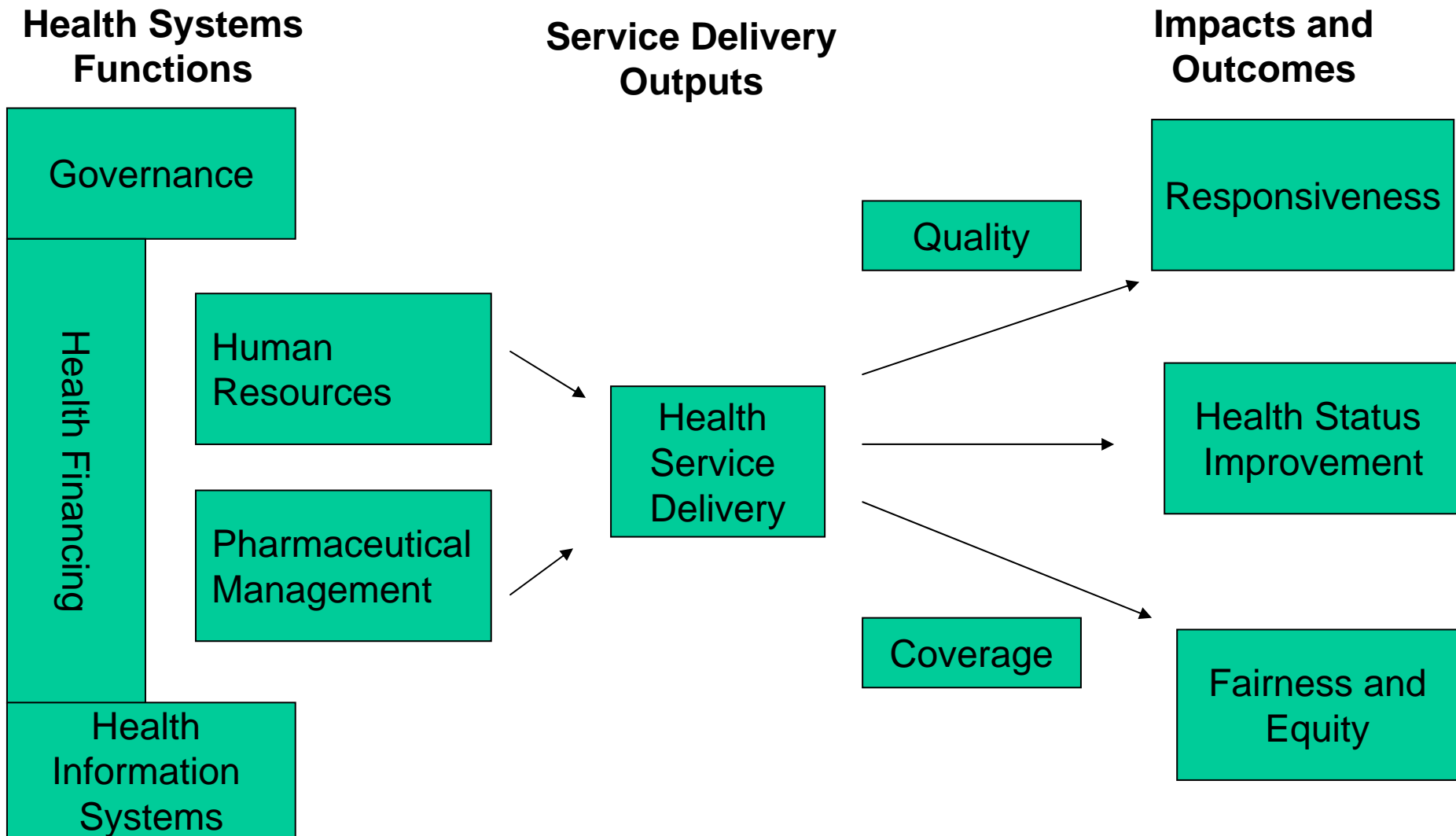
1. Name and define the 6 health system functional components;

2. Recognize basic types of health systems problems typically encountered in the field for the purpose of requesting expert assistance;

3. Identify 2-3 principal areas of intervention to address health systems problems within each of the 6 components;

4. Explain the rationale for conducting an assessment of health systems as a contribution to achieving health element objectives

Health Systems Functions and Impacts

Health Systems Functions

Service Delivery Outputs

Impacts and Outcomes

Governance

Health Financing

Human Resources

Pharmaceutical Management

Health Information Systems

Health Service Delivery
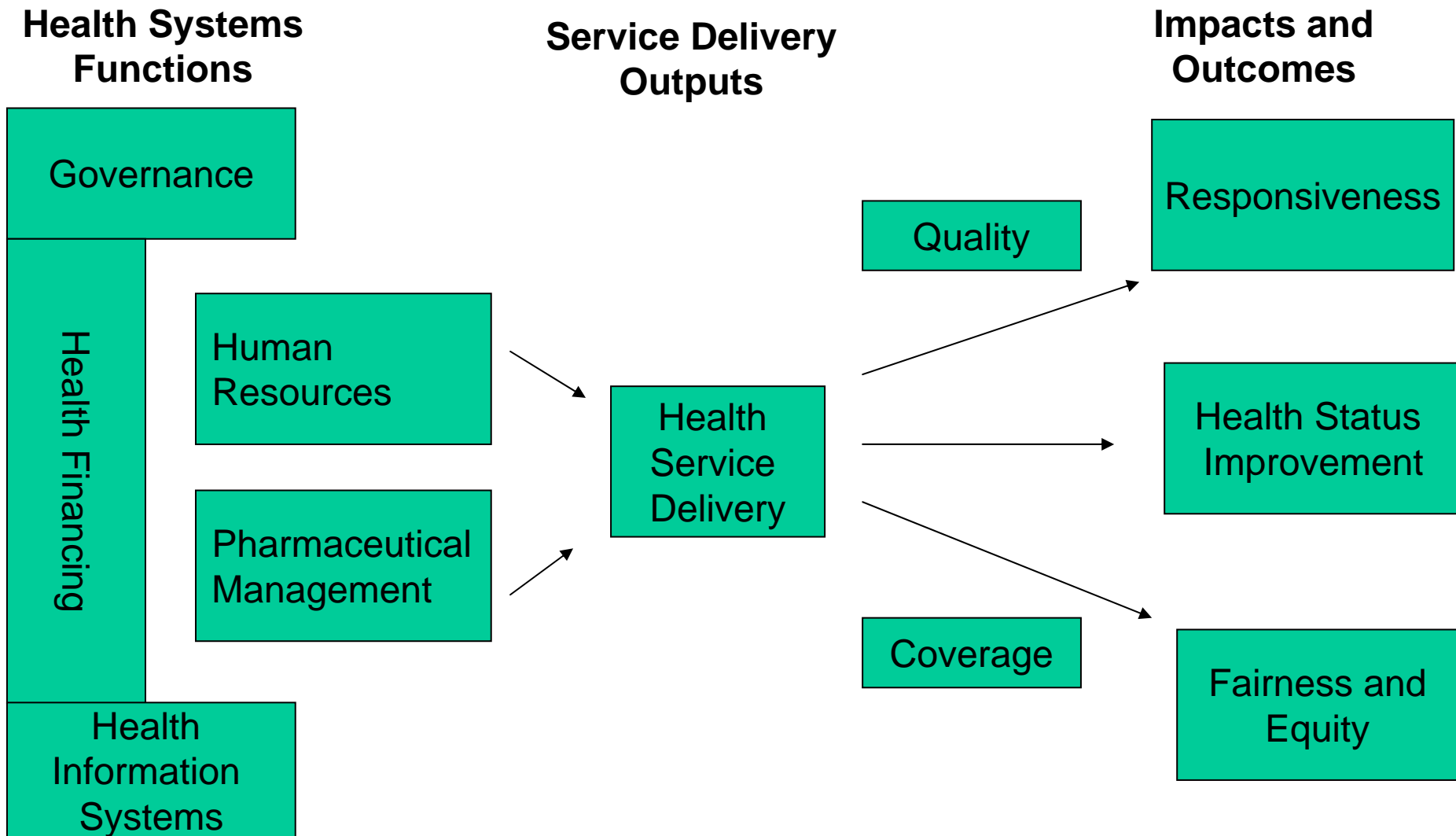
Quality

Coverage

Responsiveness

Health Status Improvement

Fairness and Equity

Five Key Performance Criteria

- Equity
- Access
- Quality
- Efficiency
- Sustainability

Health Systems Functions and Impacts

Health Systems Functions

- Governance
- Health Financing
- Human Resources
- Pharmaceutical Management
- Health Information Systems

Service Delivery Outputs

- Quality
- Health Service Delivery
- Coverage

Impacts and Outcomes

- Responsiveness
- Health Status Improvement
- Fairness and Equity

1. Health Service Delivery

Sample Health Sector Pyramid from Angola Health System

11 National Hospitals

18 Provincial Hospitals

44 Municipal Hospitals

246 Health Centers

1,228 Health Posts
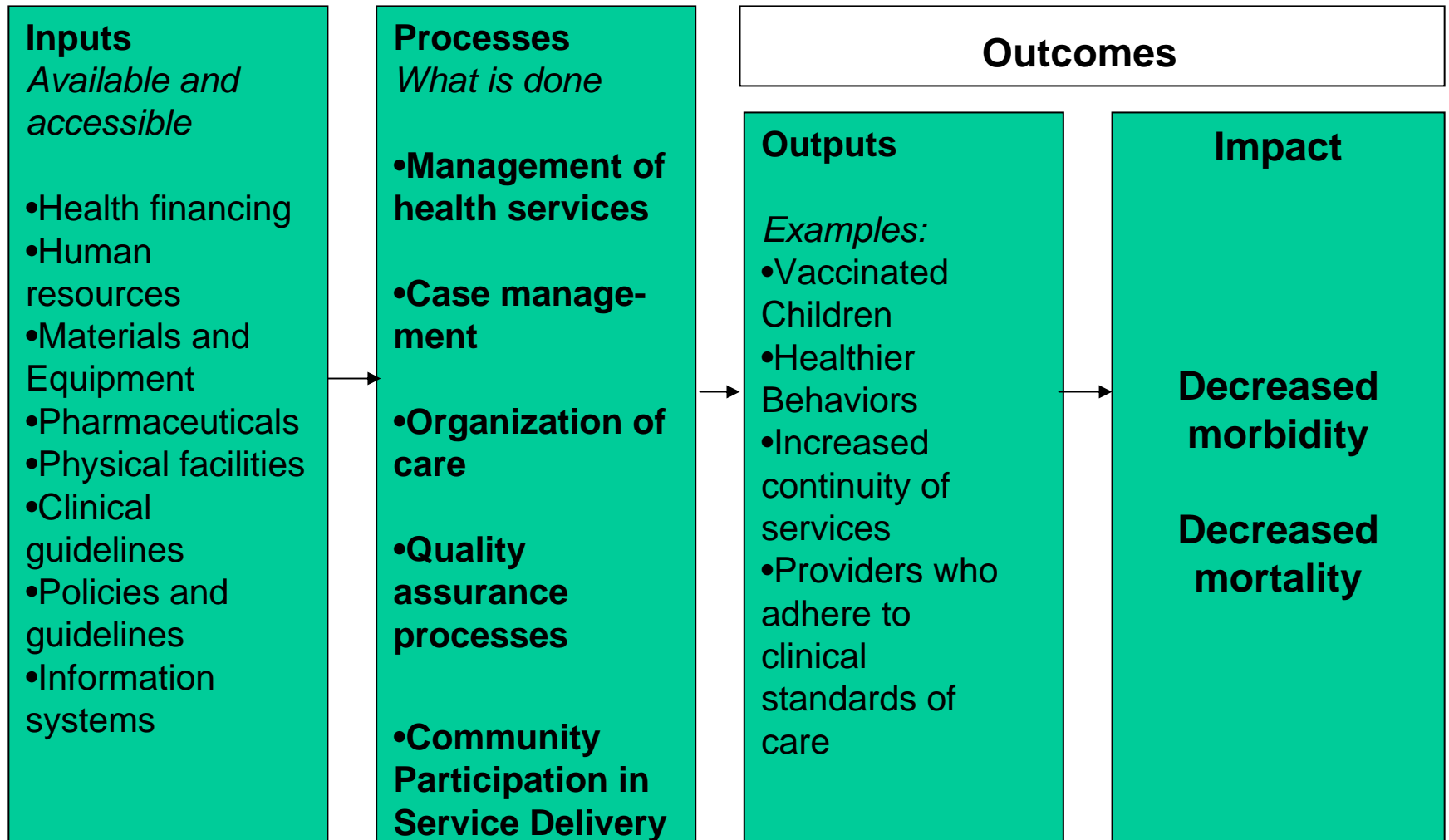
- The World Health Organization (WHO) defines *service delivery* as the way inputs are combined to allow the delivery of a series of interventions or health actions (WHO 2001

- Includes both <u>personal health and public health</u> services

- Includes <u>platforms</u> for health actions in facilities and also in villages, homes, and other settings

- For-profit (commercial) and nonprofit (nongovernmental organization formal health care providers, including hospitals, health centers, and clinics

- Traditional and informal practitioners, including traditional midwives and healers

- Membership organizations for such providers such as professional associations or unions

- Private companies who may take actions to protect or promote the health of their employees (such as company clinics or health education programs)

Systemic View of Service Delivery

Inputs *Available and accessible* •Health financing •Human resources •Materials and Equipment •Pharmaceuticals •Physical facilities •Clinical guidelines •Policies and guidelines •Information systems	Processes *What is done* •**Management of health services** •**Case manage-ment** •**Organization of care** •**Quality assurance processes** •**Community Participation in Service Delivery**

Outcomes

Outputs *Examples:* •Vaccinated Children •Healthier Behaviors •Increased continuity of services •Providers who adhere to clinical standards of care	**Impact** **Decreased morbidity** **Decreased mortality**

- – Development of evidence-based guidelines
- – Routine monitoring of quality of care
- – Promoting compliance with guidelines
- – Problem solving/quality improvement
- – Re-design of systems of care
- – Patient satisfaction/community input into care
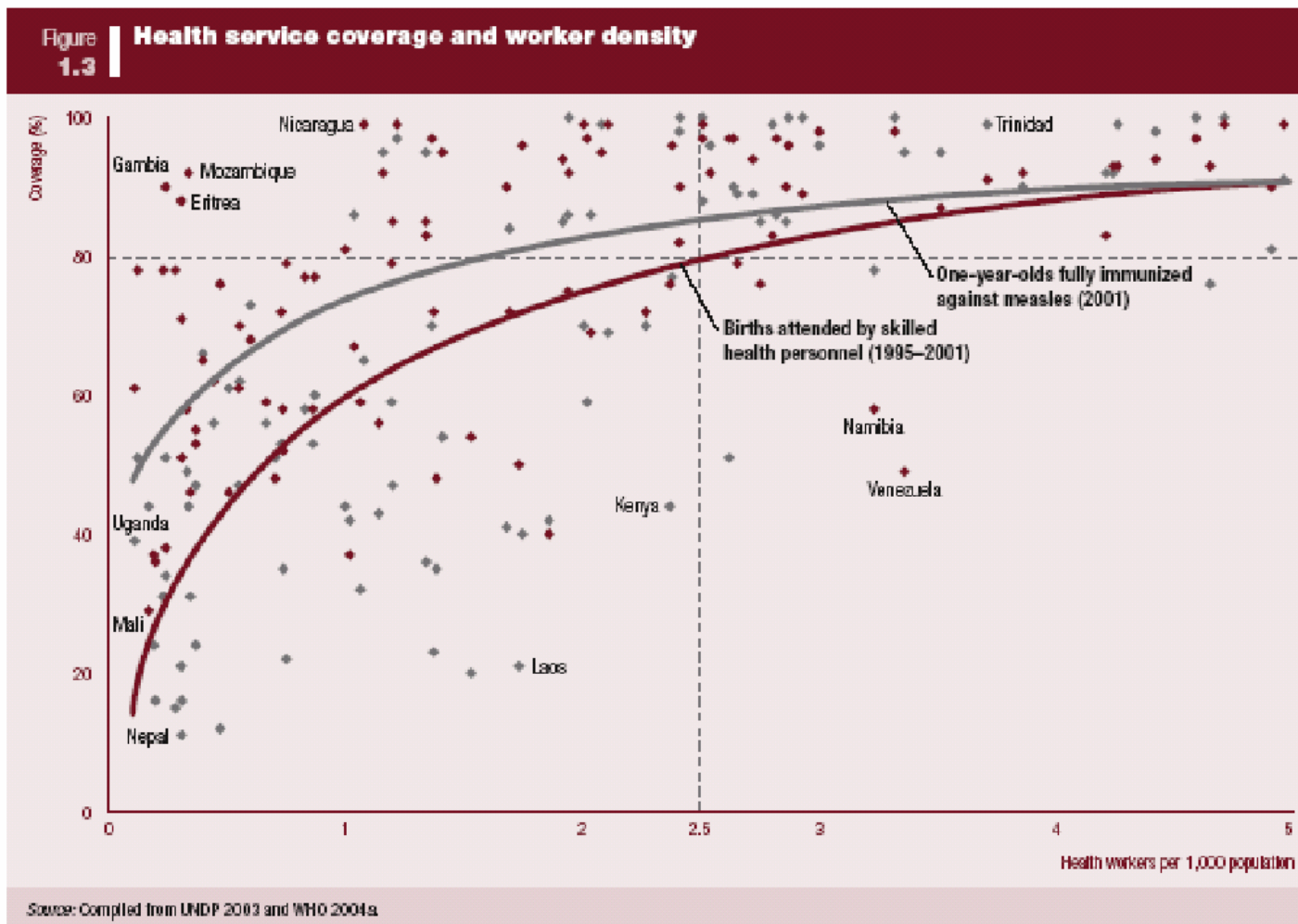- – Regulatory strategies

2. Human Resources
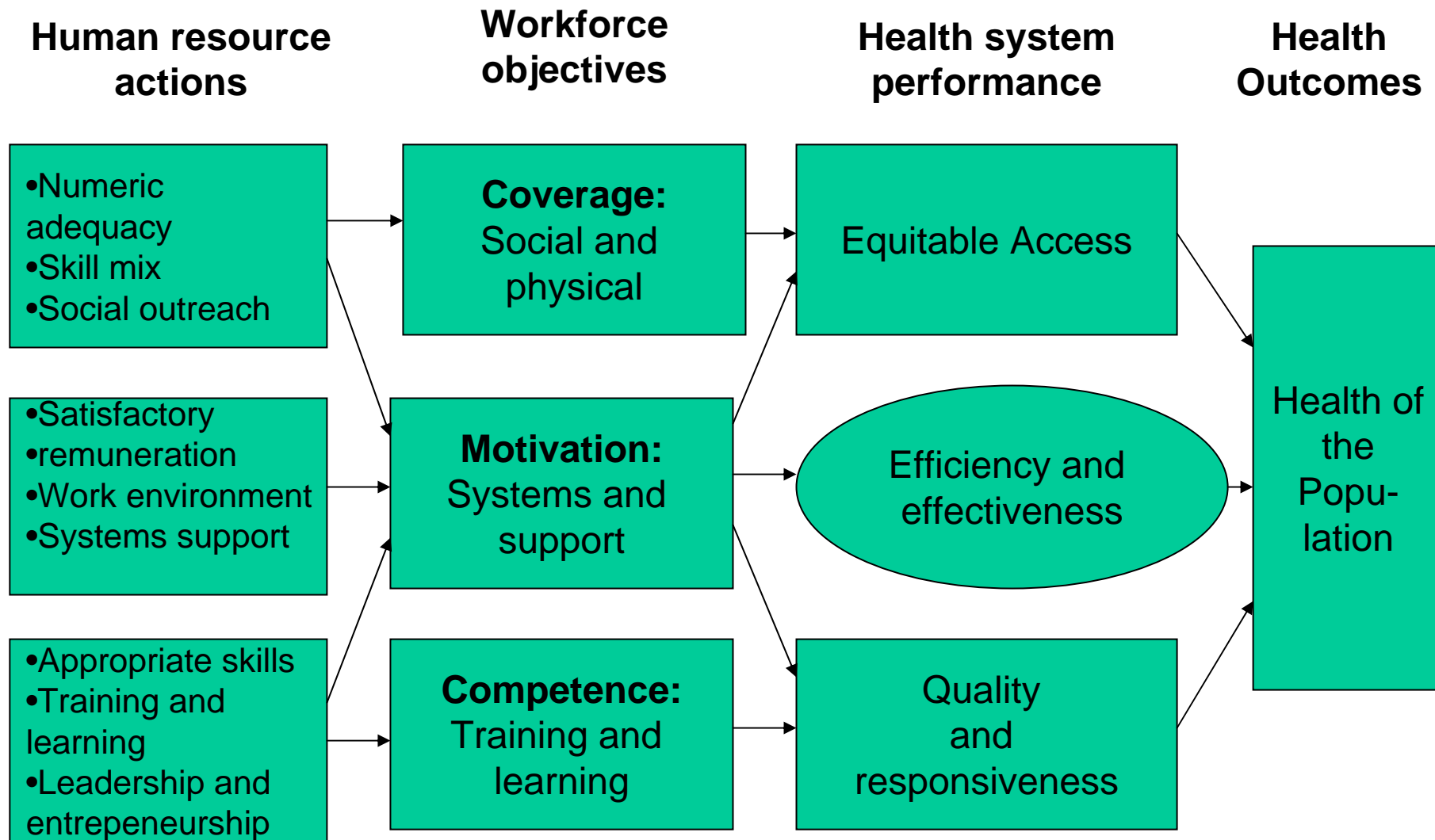
Health workers deliver quality responsive services

Health service coverage (%)

Figure 1.3 | Health service coverage and worker density

One-year-olds fully immunized against measles (2001)

Births attended by skilled health personnel (1995–2001)

Source: Compiled from UNDP 2003 and WHO 2004a.

Health workers per 1,000 population

Source: Joint Learning Initiative, 2004, based on UNDP 2003 and WHO 2004.

Human Resource Actions

Human resource actions	Workforce objectives	Health system performance	Health Outcomes

Human resource actions
- Numeric adequacy
- Skill mix
- Social outreach

- Satisfactory
- remuneration
- Work environment
- Systems support

- Appropriate skills
- Training and learning
- Leadership and entrepeneurship

Coverage: Social and physical

Motivation: Systems and support

Competence: Training and learning

Equitable Access

Efficiency and effectiveness

Quality and responsiveness

Health of the Population

Joint Learning Initiative, 2004

Human Resources Cycle

RECRUITMENT

Pre-service training

-Clinical vs Managerial

-Specialist vs polyvalent

-Professional vs volunteer

ATTRITION

-Death

-Braindrain: loss vs gain

-Pension

Social Franchising

DISTRIBUTION

-Geo: rural vs urban

-Type: key-staff vs others

-Level: central vs service delivery

-Sector: public vs private

RETENTION

-Monetary: salary vs allowances

-Secondary: housing, transport, communication, electrification, child education, training opportunities etc.

-HR management

What does human resource management include?

- Supplying appropriate staff for system needs
- Systems to manage performance
- Personnel admin that supports services
- Integrate education/training and services
- Appropriate emphasis to HR in planning and management

3. Pharmaceutical Management

**Commodities are available
and appropriately used**
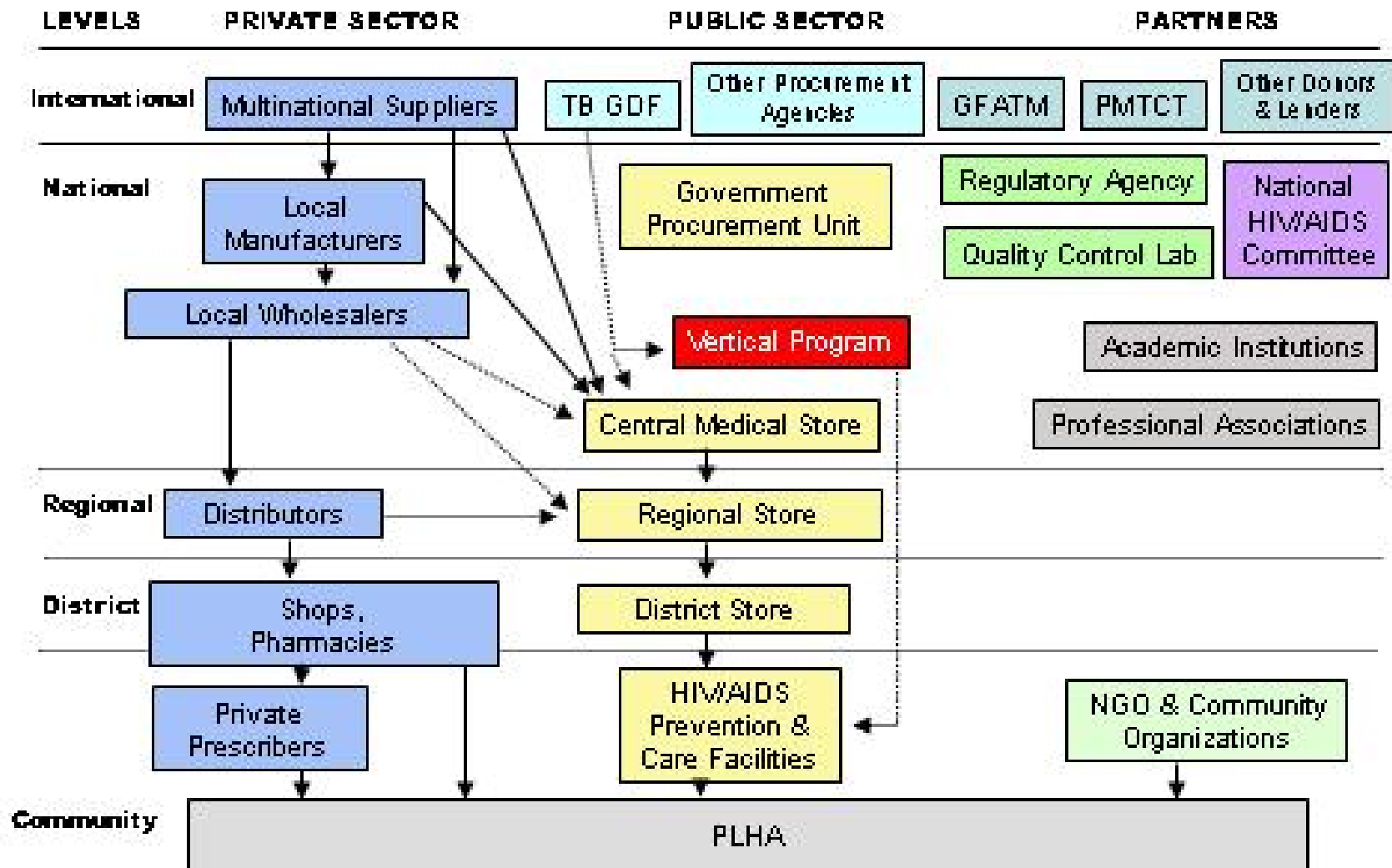
USAID works on drug management in order to:

- Provide drug access to 1/3 world's population without it

- Reduce Counterfeit drugs (10-35% in developing countries)

- Improve info that makes ½ all drugs unsafe/ineffective

- Protect effectiveness of current drugs from antimicrobial resistance
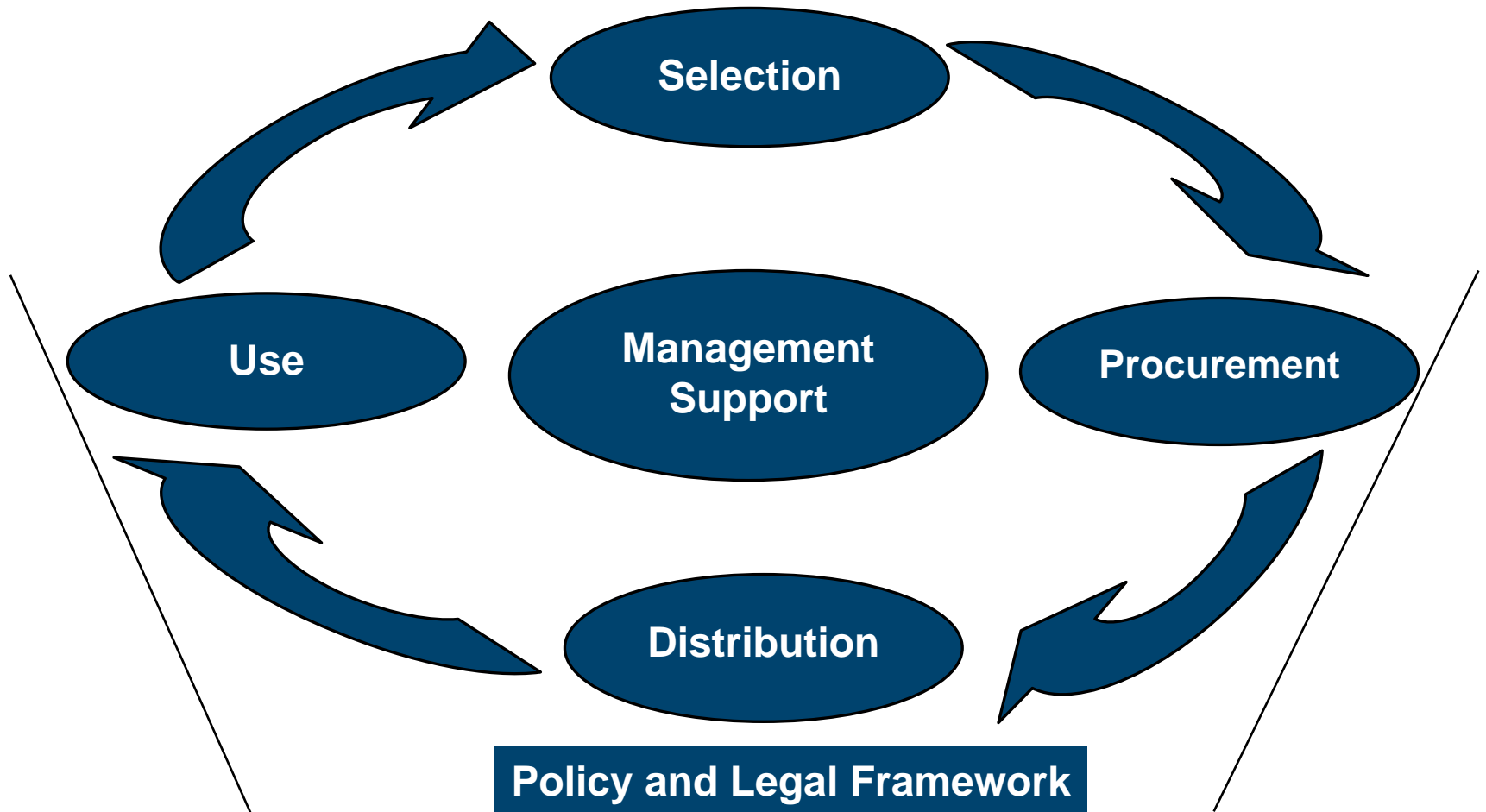
Resistance leads to:

- More expensive drugs

- More complex treatment regimens

- More toxic drugs and dosing regimens

- No drugs (like pre-antibiotic era)

Examples: multi-drug resistant (MDR) malaria, tuberculosis, dysentery, acute respiratory infections, HIV/AIDS

What would you do, considering:

1) Health Service Delivery

2) Human Resources

3) Pharmaceutical Management

4. Health Governance

"The process of competently directing health system resources, performance, and stakeholder participation toward the goal of saving lives and doing so in ways that are open, transparent, accountable, equitable, and responsive to the needs of the people"

Why worry about governance?

- 1/3rd of government procured essential drugs missing leading to nationwide stock-outs
- Local government spends limited health resources on painting hospitals instead of primary care
- Counterfeit drugs more widely available at drug stores than legitimate drugs
- Policymakers unable to pass major finance reforms because of power struggle between two MOH individuals
- 19% of human resource payroll spent on "ghost workers"

1. Information/Assessment capacity
2. Policy Formulation and Planning
3. Social Participation and System Responsiveness
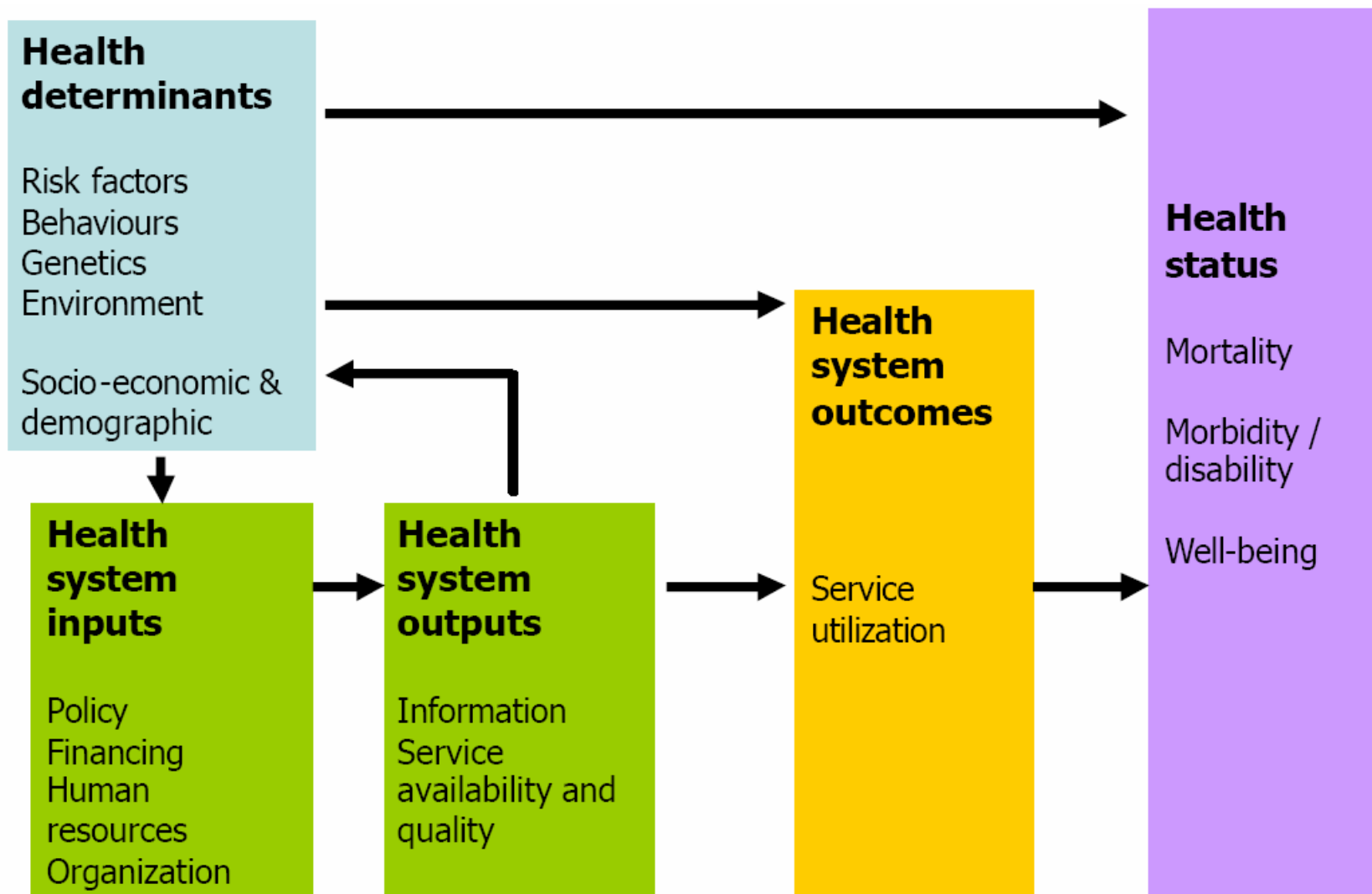4. Accountability
5. Regulatory Capacity

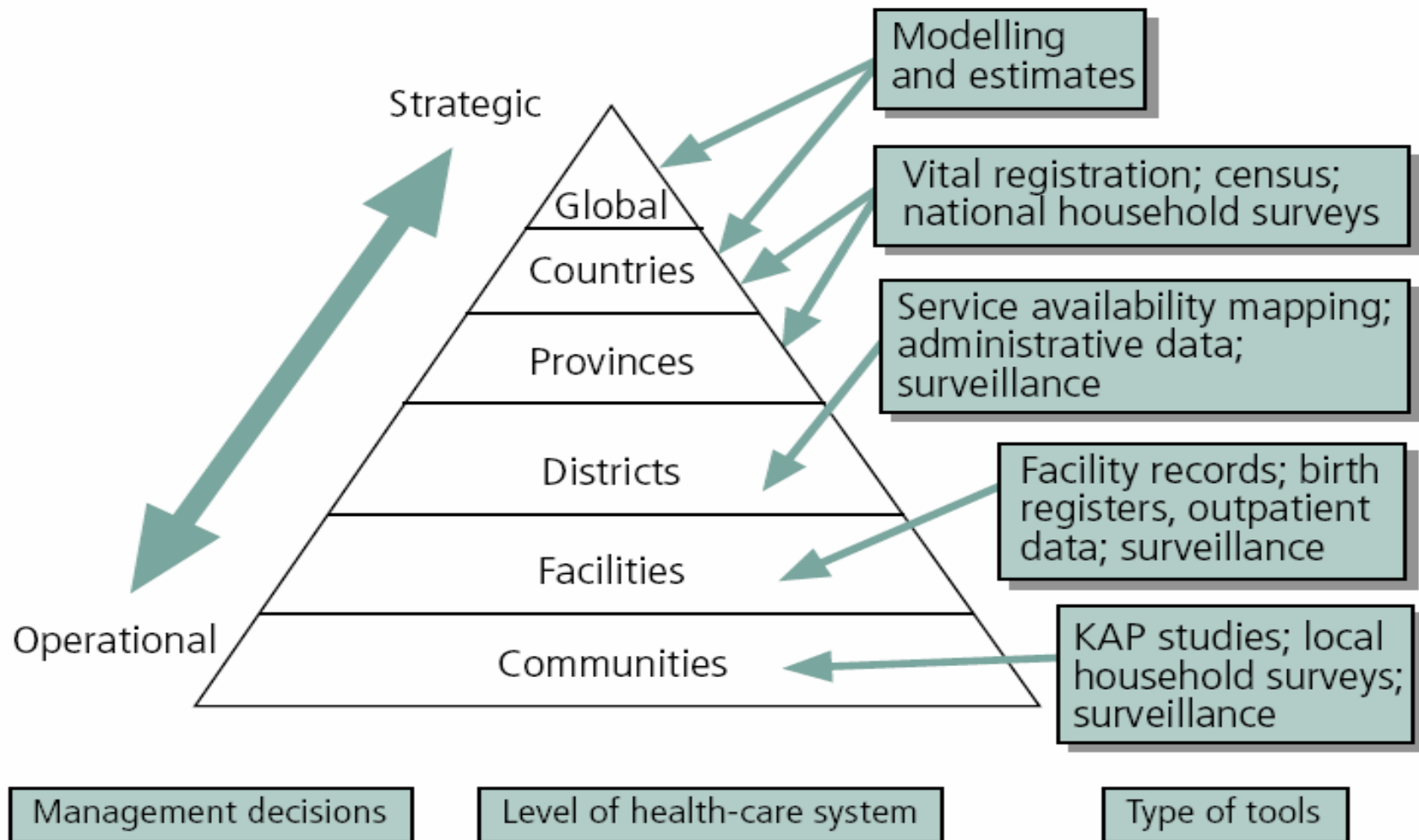# 5. Health Information Systems

Why Health Information Systems?

- Detect and control emerging and endemic health problems; monitor progress towards health goals; and promote equity.

- Empower individuals and communities with timely and understandable health-related information; and drive improvements in quality of services.

- Strengthen the evidence base for effective health policies; permit evaluation of scale-up efforts; and enable innovation through research.

- Improve governance; mobilize new resources; and ensure accountability in their use.

Source: Health Metrics Network, 2007

Health determinants

Risk factors
Behaviours
Genetics
Environment

Socio-economic & demographic

Health system inputs

Policy
Financing
Human resources
Organization

Health system outputs

Information
Service availability and quality

Health system outcomes

Service utilization

Health status

Mortality

Morbidity / disability

Well-being

Source: Health Metrics Network, 2007

Source: AbouZahr and Boerma (2005)

Why are systems broken?

Fishbone (Ishikawa) diagram showing causes of "Poor quality Health information"

Supervision
- Health workers with poor or non-existent reading skills tasked to fill forms
- Poor supervision of health workers at health facilities
- No feedback on reporting from district level to health facilities
- Health facilities not held accountable by district level
- District level not held accountable by central level

Workload
- Too many forms often asking redundant information
- Too many indicators on each form
- Not enough time to fill forms and see patients
- Not enough health workers to manage administration

Supplies
- Not enough paper forms at facility level
- Not enough computers at district level to compile data
- Forms overly complex and redundant

Health Worker Incentives
- Health facility managers not incentivized to ensure proper reporting: they believe reporting is useless
- Districts have incentive to over-report disease to gain additional funds from MOH: no incentive to mandate accurate information from health facilities
- No incentive for health workers to accurately fill out forms: Too much work with no benefit
- Facilities face no penalties for reporting late

Training
- No training available to health-workers on reporting
- District level not trained on how to audit reports
- District level not trained on how to compile HIS data
- Facility managers not trained on how to supervise reporting

Poor quality Health information

6. Health Finance

A conceptual overview of finance

Functions	**Objectives**

Revenue Collection ➡️ raise *sufficient* and *sustainable* revenues in an *efficient* and *equitable* manner to provide individuals with both a *basic package of essential services* and *financial protection against* unpredictable catastrophic financial losses caused by illness and injury

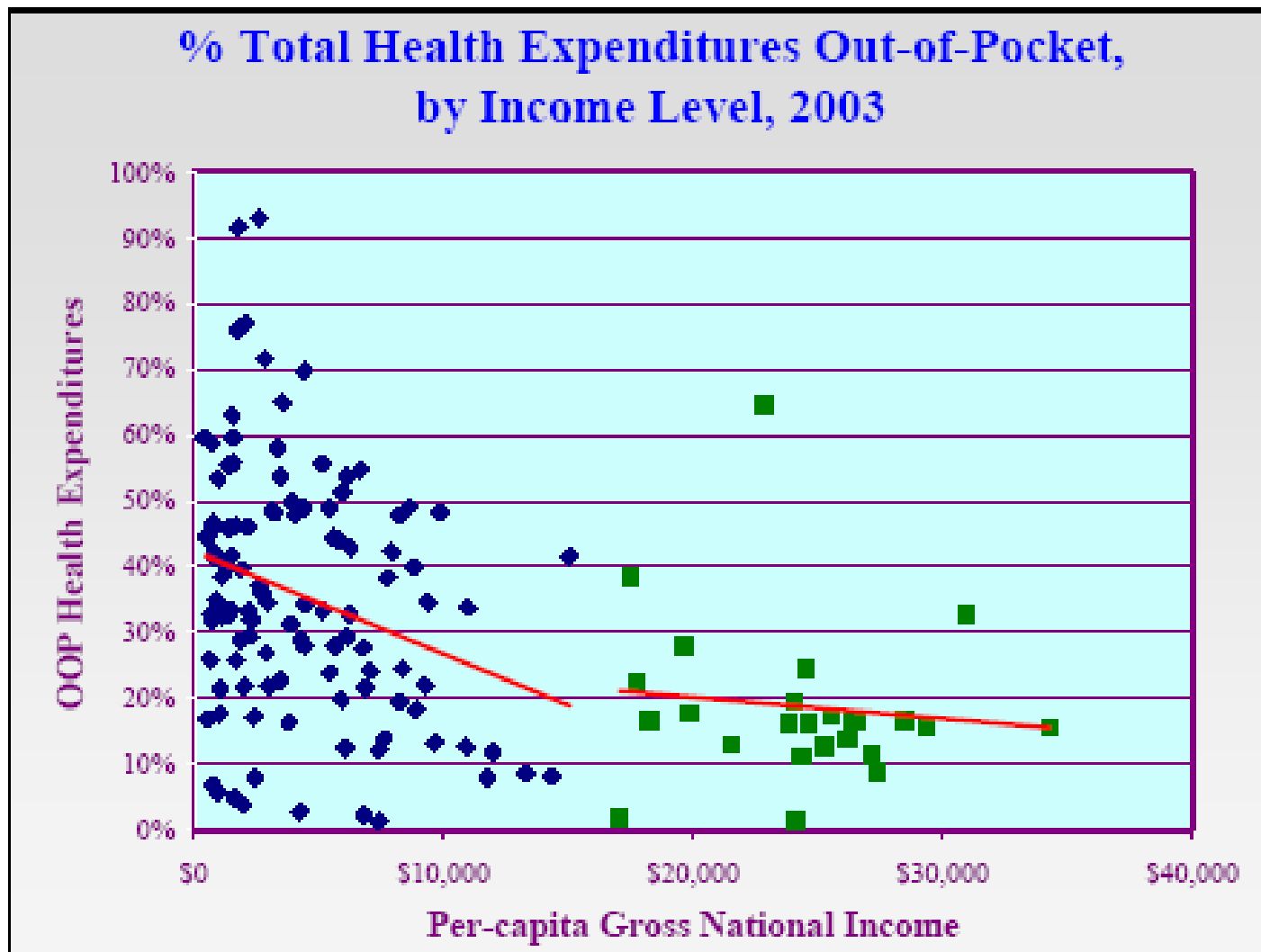**Pooling** ➡️ manage these revenues to *equitably* and *efficiently* pool health risks

Purchasing ➡️ assure the purchase of health services in an *allocatively* and *technically efficient* manner

% Total Health Expenditures Out-of-Pocket, by Income Level, 2003

- Small to non-existent recurrent cost budget from local/central governments forces facilities to charge user-fees

- Poor prioritization by governments: diverting disproportionately more resources to tertiary care than to primary care

- Low overall government expenditures on health: $21 per capita in low-income countries, with some below $13

Two Strategies for USAID:

1) Improve government allocations to health
2) Increase efficiency of out-of-pocket expenditures

Source: Cristian C. Baeza, World Bank, 2005
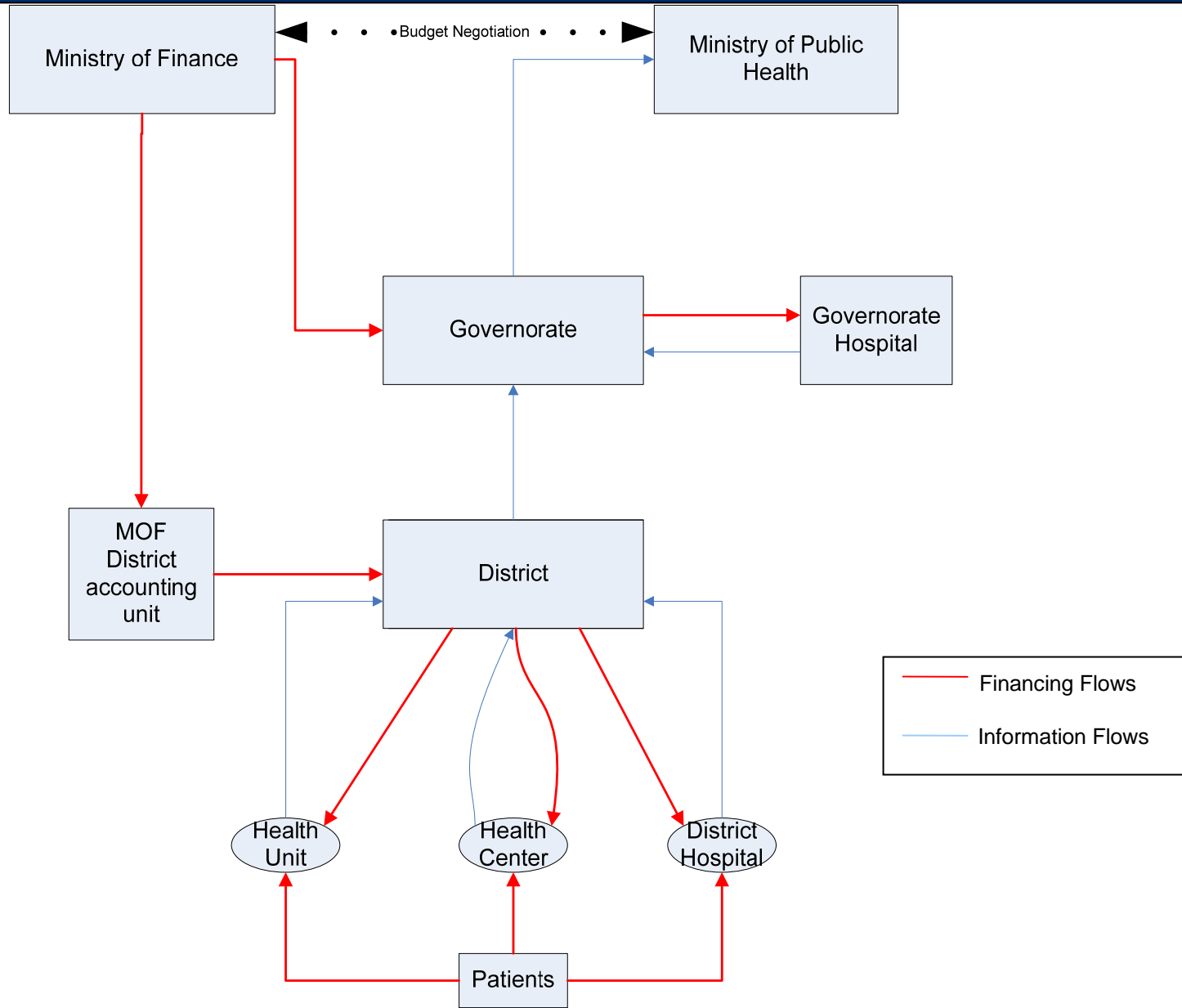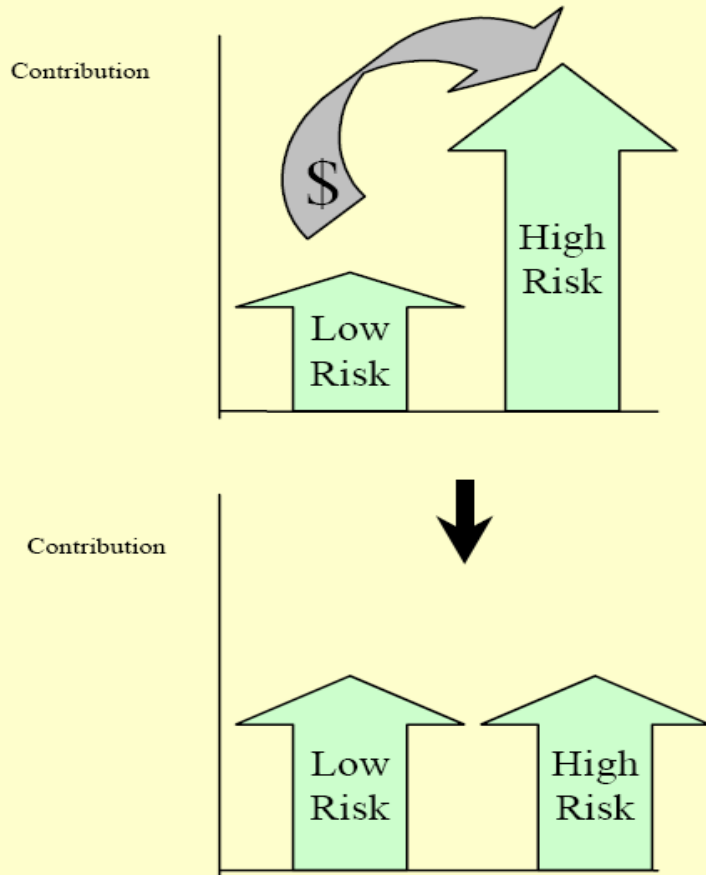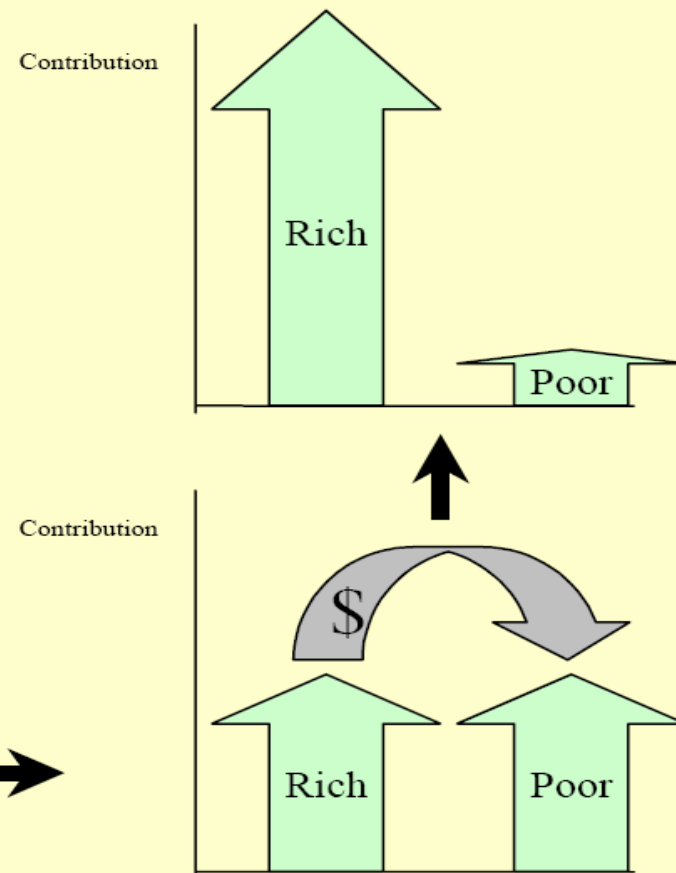
1. Insurance (Social, Community-based, etc)
2. Targeted Subsidies
3. Conditional Cash Transfers

The problem:

1) Regional government sends standard, line-item budget to all health facilities irrespective of local health needs.

2) User fees collected cannot be used by facility – must be sent back to regional level.

3) Very low utilization of health facilities due to lack of relevant commodities and drugs

What would you do, considering:

1) Finance

2) Information Systems

3) Governance

Central Health Systems Projects

- Health Systems 20/20 (HS 20/20): http://www.healthsystems2020.org/
- Rational Pharmaceutical Management Plus (RPM Plus): http://www.msh.org/projects/rpmplus/
- United States Pharmacopeia Drug Quality and Information (USP DQI): http://www.uspdqi.org/about/
- Quality Assurance and Workforce Development (QAWD): http://www.qaproject.org/
- Service Delivery Improvement (SDI): (QAWD follow-on coming soon)
- MEASURE Evaluation: http://www.measureprogram.org/
- MEASURE Demographic and Health Surveys (DHS): http://www.measuredhs.com/
- Capacity: http://www.capacityproject.org/
- Health Policy Initiative (HPI): http://www.policyproject.com/;
- http://ghiqc.usaid.gov/hpi/index.html
- Leadership, Management and Sustainability (LMS): http://www1.msh.org/projects/lms/
- Private Sector Program IQC (PSP IQC): http://www.pspiqc.org/
- Private Sector Partnerships-*One* (PSP-*One*): http://www.psp-one.com/
- USAID | DELIVER Project: http://deliver.jsi.com
- Supply Chain Management System (SCMS): www.scms.pfscm.org

Revised May 2007

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---WHO, "The world medicines situation, 2004." *[http://www.searo.who.int/LinkFiles/Reports_World_Medicines_Situation.pdf]*

---WHO, "The world health report, 2006 – working together for health." *[http://www.who.int/whr/2006/en/]*

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- Partners for Health Reform *plus* (PHRplus): http://www.phrplus.org/
- Rational Pharmaceutical Management Plus (RPM Plus): http://www.msh.org/projects/rpmplus/
- United States Pharmacopeia Drug Quality and Information (USP DQI): http://www.uspdqi.org/about/
- Quality Assurance and Workforce Development (QAWD): http://www.qaproject.org/
- MEASURE Evaluation: http://www.measureprogram.org/
- MEASURE Demographic and Health Surveys (DHS): http://www.measuredhs.com/
- Capacity: http://www.capacityproject.org/
- Policy II: http://www.policyproject.com/
- Policy Dialogue and Improvement (PDI) (Policy II follow-on coming soon)
- Management and Leadership Development (M&L): http://www.msh.org/projects/mandl/
- Leadership, Management and Sustainability (LMS): (M&L follow-on; no website)
- Private Sector Program IQC (PSP IQC): http://www.pspiqc.org/
- Private Sector Partnerships-*One* (PSP-*One*): http://www.psp-one.com/
- Deliver: http://www.deliver.jsi.com/newvern
- Supply Chain Management System (SCMS): www.scms.pfscm.org

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